

REMARKS

Prior to entry of this amendment, claims 1-20 are pending in the subject application. By the instant amendment, claim 15 is amended and claims 21-27 are added. Claims 1, 15 and 20 are independent.

Claims 1-27 are presented to the Examiner for further or initial prosecution on the merits.

A. Introduction

In the outstanding Office action, the Examiner rejected claims 15-18 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,474,783 to Pilosof et al. (hereinafter referred to as "the Pilosof et al. reference"); and allowed claims 1-14, 19 and 20.

B. Asserted Anticipation Rejection

In the outstanding Office action, the Examiner rejected claims 15-18 under 35 U.S.C. § 102(b) as being anticipated by the Pilosof et al. reference. Applicants respectfully traverse this rejection.

1. Claim 15 is amended to restore the language as presented Oct. 13, 2006

As an initial matter, applicants note that claim 15 has been amended to restore the language of claim 15 as it was presented in the amendment filed October 13, 2006, i.e., prior to the amendment filed February 22, 2007. Accordingly, the Examiner is expressly requested to re-visit any prior art references previously considered, as applicants no longer intend to be limited to the scope of claim 15, and the claims depending therefrom, as they were presented in the February 22nd amendment. In addition, applicants disavow any disclaimer of claim scope that may have arisen as a result of arguments previously advanced by the applicants in connection with the February 22nd amendment to claim 15. *See Hakim v. Cannon Avent Group, PLC, No. 2005-1398, 2007 U.S. App. LEXIS 3926; 81 USPQ2d (BNA) 1900 (Fed. Cir. 2007).*

2. The Examiner failed to address applicants' arguments

Applicants have repeatedly asserted that the Examiner's rejection of claim 15 is improper because the Pilossof et al. reference fails to teach irradiating a laser beam *directly* on ink contained in the ink chamber, as recited in claim 15.¹ Applicants respectfully submit that the Examiner has failed to properly address these arguments, and therefore the Examiner's continued assertion of this rejection is improper.

The Examiner initially asserted that the Pilossof et al. reference teaches that "the laser source 10 in Figure 28 of Pilossof et al passes through the condenser lens 14 and then directly onto the ink contained in the ink chamber 30." However, as argued previously by the applicants, and as set forth again in detail below, this assertion is incorrect and is contradicted by the Pilossof et al. reference itself, because there is no teaching in the Pilossof et al. reference that laser light ever reaches the ink in the ink chamber, and thus the reference does not teach irradiating laser energy "directly" onto the ink, as recited in claim 15.

In response to applicants' arguments in this regard, the Examiner then provided a different rationale for upholding the rejection, asserting that the Pilossof et al. reference "generates a pulse of acoustic waves being increased and applied directly onto the ink contained in the ink chamber 30."² Thus, the Examiner has admitted that the Pilossof et al. reference teaches applying *acoustic waves*, rather than laser energy, "directly" onto ink contained in the ink chamber. Accordingly, rather than supporting the rejection, this new rationale admits to accuracy of applicants' arguments, restated in detail below, regarding the meaning of the term "directly" and the failure of the Pilossof et al. reference to teach irradiating laser energy "directly" onto the ink, as recited in claim 15. Thus, by the Examiner's own admission, the Pilossof et al. reference fails to teach each and every element of claim 15.

¹ See applicants' remarks in the amendments filed October 13, 2006 (page 11), and February 22, 2007 (pages 9-10).

² See the outstanding Office action, mailed April 23, 2007, paragraph no. 5, pages 3-4.

3. The applied prior art fails to teach each and every element of claim 15

In rejecting claim 15, the Examiner asserted that claim 15 is anticipated by the Pilosof et al. reference. Applicants respectfully disagree. Claim 15 recites, *inter alia*, “irradiating a laser beam directly onto the ink contained in the ink chamber.” However, contrary to the Examiner’s assertion, the Pilosof et al. reference does not teach irradiating a laser beam directly onto ink contained in the ink chamber. Rather, the Pilosof et al. reference teaches irradiating a laser source 10 through a window 24, which is “substantially transparent to laser light,” and into a buffer liquid 34. The laser light is “absorbed by the buffer liquid 34.”³ In view of these teachings in the Pilosof et al. reference, it is apparent that the reference directly contradicts the Examiner’s assertion that the reference teaches irradiating a laser beam directly onto ink contained in the ink chamber. In particular, it is clear that the Pilosof et al. reference distinguishes elements that are “transparent” to laser light from those that “absorb” it. Further, it is clear that the buffer liquid 34 absorbs, rather than passes, laser light.

In addition, the Pilosof et al. reference does not teach that laser light can pass through the intermediate body 28 that is disposed between the laser source and the ink in the ink chamber. Rather, the intermediate body 28 is configured to pass the acoustic wave.⁴ Thus, even assuming, *arguendo*, that absorption and/or transformation of the laser light by the buffer liquid 34 may not be 100%, the Pilosof et al. reference nonetheless fails to teach that the intervening intermediate body 28 passes laser light to the ink.

4. The applied prior art teaches away from the method recited in claim 15

Moreover, the Pilosof et al. reference describes creating an acoustic wave *in the buffer liquid 34*. Thus, the buffer liquid 34 transforms the laser light into the acoustic wave, rather than transmitting the laser light. Therefore, the Pilosof et al. reference teaches away

³ See the Pilosof et al. reference, col. 5 at, e.g., lines 22-27 and 48-50.

⁴ See the Pilosof et al. reference at, e.g., col. 5, lines 52-54, and col. 8, lines 8-44.

from irradiating a laser beam directly onto ink contained in the ink chamber, because the laser light must be absorbed by the buffer liquid 34 in order to generate the acoustic wave in the buffer liquid 34. Therefore, the Pilossof et al. reference teaches away from irradiating a laser beam directly onto ink contained in the ink chamber, as recited in claim 15.

5. The Examiner's interpretation of "directly" is improper

Furthermore, the Examiner's interpretation of the language recited in claim 1 relies on an unreasonably broad interpretation of the term "directly" by failing to interpret that claim term in accordance with applicants' express definition. The term "directly" is defined by the applicants in the original application as having no intervening layers.⁵ It is well-settled law that the applicant is entitled to be his own lexicographer.⁶ Moreover, where, as here, the applicants have provided their own definition of a claim term, that definition will control interpretation of that term as it is used in the claim.⁷ Since the applicants have defined the term "directly," as recited in claim 15, applicants respectfully submit that the Examiner must adhere to this definition.

In particular, the Pilossof et al. reference teaches that laser light is absorbed by the intervening buffer liquid 34, and is not passed to the ink. Further, the Pilossof et al. reference does not teach that the intermediate body 28 passes laser light. The acoustic wave, rather than the laser light, enters the ink through the intermediate body 28. Thus, the Pilossof et al. reference fails to teach that the laser light is directly irradiated on ink in the ink chamber. Thus, the Examiner's interpretation of claim 15 is improper.

In view of the above, applicants respectfully submit that the Pilossof et al. reference fails to disclose, or even suggest, each and every element of claim 15. Accordingly,

⁵ See the application as originally filed, paragraph [0029].

⁶ See, e.g., *In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) and *Vitronics Corp. v. Conception Inc.*, 90 F.3d 1576, 1582, 39 USPQ2d 1573, 1576 (Fed. Cir. 1996).

⁷ See, e.g., *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999)

claim 15, as well as the claims depending therefrom, are allowable over the Pilosof et al. reference. Therefore, applicants respectfully request that this rejection be reconsidered and withdrawn.

C. Allowable Subject Matter

Applicants note with appreciation the Examiner's allowance of claims 1-14, 19 and 20. However, applicants respectfully submit that all of the claims in the application are in condition for allowance, and a notice to that effect is respectfully requested.

D. New Claims

By the instant amendment, claims 21-27 are added. No new matter is added, and support for these claims can be found in the application as originally filed at, e.g., paragraphs [0032]-[0048]. Claim 21 depends from claim 1. Claims 22-25 depend, directly or indirectly, from claim 15. Claims 26 and 27 depend, directly or indirectly, from claim 20. Applicants respectfully submit that claims 21-27 are allowable over the applied prior art, and a notice to that effect is respectfully requested.

E. Comments on Statements of Reasons for Allowance

Applicants note the Examiner's Statements of Reasons for Allowance that were provided with respect to claim 20 in the Office Action Made Final, mailed December 22, 2006 (at paragraph no. 6, page 6 therein). Applicants agree that the applied prior art fails to teach, *inter alia*, the subject matter identified by the Examiner in the Examiner's Statement of Reasons for Allowance. However, applicants respectfully submit that each of the allowed claims is patentable by merit of *all* of the subject matter recited therein, not merely the particular claim terms identified by the Examiner.

Applicants also note the Examiner's comments in the outstanding Office action regarding allowance of claims 1-14, 19 and 20 (at paragraph no. 4, page 3 therein). Applicants maintain that the applied prior art fails to teach those aspects of the claimed subject matter that were identified in applicants' remarks filed February 22, 2007. However,

applicants' February 22nd comments did not purport to identify each and every aspect of the claims that are not taught by the applied prior art. Applicants respectfully submit that the each of the allowed claims is patentable by merit of *all* the subject matter recited therein, not merely the particular claim terms identified by the February 22nd comments.

F. Interview Request

Applicants respectfully request, prior to the issuance of an action on the merits, that the Examiner grant a personal interview with applicants' representative in order to discuss in detail the differences between the cited prior art and the subject matter recited in the claims.

Applicants' representative will contact the Examiner via telephone within two weeks of the filing of the instant amendment in order to confirm the acceptability of a personal interview and determine a mutually convenient time and date for conducting the same.

G. Conclusion

The above remarks demonstrate the failings of the Examiner's arguments with respect to the outstanding rejection, and are sufficient to overcome them. However, these remarks are not intended to, nor need they, comprehensively address each and every reason for the patentability of the claimed subject matter over the applied prior art. Accordingly, applicants do *not* contend that the claims are patentable solely on the basis of the particular claim elements discussed above.


In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all the claims is hereby requested.

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

Respectfully submitted,

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PETITION and
DEPOSIT ACCOUNT CHARGE AUTHORIZATION

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.